

Amendments to the Drawings:

Please find enclosed four (4) sheets of drawings. The first sheet, which includes Fig. 1a, replaces the original sheet which included Fig. 1. The second sheet, which includes Fig. 2a, replaces the original sheet which included Fig. 2. The third and fourth sheet each include new Figure 2a and new Figure 2b, which depict previously omitted elements 30-33. Applicant submits that no new matter has been added.

**REMARKS**

As of the date of the Office Action mailed April 17, 2007 (“Office Action”), Claims 1-21 are pending in this application, of which claims 3 and 18-21 were previously withdrawn without prejudice in response to the Examiner’s restriction requirement.

**Amendments to the Claims**

Claims 1, 2, 4, 5, 6, 9 and 17 have been amended in this amendment as further noted below.

**Amendments to the Specification, Drawings**

The abstract has been amended in response to the Examiner’s objection. Paragraphs 23, 24, 28, 29, 30, 32, and 33 have been amended to correct minor editorial issues. New paragraphs [0023.1] and [0024.1] have been added after paragraphs [0023] and [0024] respectively, and discuss in general terms added Figures 1b and 2b.

Figure 1a has been amended to clarify the relationship between the relative position of the external frame 2, fixed side walls 4, and top plate 14, in relation to the end plates 7, as shown in a “pre-load” position. Figure 2a is a schematic front view of the soil test box shown in Figure 1a, and further depicts the “pre-load” position. In amended Figure 2a, the previously omitted element numerals 30-33 have been added. Support for the amendment may be found in the specification at paragraphs [0016], [0029] (viewing window; access port), and paragraphs [0017], [0035] (water introduction means, heating means, and cooling means).

New Figure 1b shows an exaggerated “post-load” position of the test box of Figure 1a showing movement of the top plate (14) and end plates 7. New Figure 2b is a schematic front view of the soil test box shown in Figure 1b, and further depicts the “post-load” position of the test box of Figure 1b.

No new matter has been added.

**Objections to the Specification*****Abstract***

In the Office Action, the Examiner objected to the Abstract in that it exceeded 150 words and required correction. Applicant has amended the Abstract in this Amendment and believes it is in compliance. Applicant respectfully requests withdrawal of the objection to the Abstract.

***Objection to Paragraph [0012]***

In the Office Action, the Examiner objected to paragraph [0012] in that the word “plan” should have intended to be “plane.” Applicant submits that the word “plan” is proper as the word is in reference to a “plan view.” As such, Applicant respectfully requests withdrawal of the objection to paragraph [0012].

**Objections to the Drawings under 37 C.F.R. 1.83(a)**

In the Office Action, the Examiner objected to the drawings under 37 C.F.R. 1.83(a). Applicant submits herewith replacement drawing sheets for Figures 1 and 2 (renamed as Figures 1a and 2a) and which include additional Figures 1b and 2b) in compliance with 37 C.F.R. 1.121(d). No new matter is being presented.

**Objections to the Claims**

In the Office Action, the Examiner objected to claim 2 on the assumption that Applicant intended the limitation “plane” as opposed to “plan.” To further clarify the language of the claim, Applicant has amended claim 2 to recite “plan view.”

The Examiner also objected to Claims 17, 4, 5, and 9 based on informalities noted in the Office Action, page 4. Claim 17 has been amended to recite “minimize” instead of “minimise.” Claims 4 and 9 have been amended to delete the internal punctuation (comma and period, respectively) contained within the claim. No amendments were made to claim 5 as this claim does not contain the word “include.” However, claim 6 was amended to recite the word “includes” instead of “include.” Applicant respectfully submits that the amendment overcomes the objections and requests that the Examiner withdraw his objections to the claims.

**Claim Rejections – 35 U.S.C. 112, first paragraph**

In the Office Action, the Examiner rejected claims 1, 2, 9, 10, and 4-17, first paragraph, as failing to comply with the enablement requirement (see Office Action paragraphs 1-3). Applicant submits that the specification enables one skilled in the art to make and/or use the invention. For example, paragraph [0044] describes how when a load is exerted against the test article, the “compacting soil creates a vertical pressure, which in turn is resolved into a

horizontal pressure.” The specification also describes various ways in which the load may be applied to the soil, such as a Universal” testing machine, using a weight on the top plate, and by applying pressure via an inflatable diaphragm.” See paragraph [0032]. Applicant also submits that the drawings and specification that the end plates 7 are not mechanically fixed to the frame but rather rely on close fit tolerances on both sides. See paragraph [0057]. For the foregoing reasons, Applicant submits that claims 1, 2, 9, 10, and 4-17 are in compliance with 35 U.S.C. §112, first paragraph, and respectfully request that the Examiner withdraw the rejection.

**Claim Rejections – 35 U.S.C. 112, second paragraph**

In the Office Action, the Examiner rejected claims 4-6, as being indefinite. With respect to the Examiner’s rejection as applied to Claim 4-6, claim 2 has been amended to recite “wherein at least one of said side walls and said end walls are configured to permit movement or deformation.” With respect to the rejection as applied to Claim 5, Claim 5 has been amended to recite “wherein at least one of said end walls and said side walls are substantially rigid, and wherein at least one of said end walls are configured for resilient deformation or displacement in response to the applied load.” Applicant submits that claims 4-6, as amended, are definite and respectfully requests that the rejections under 35 U.S.C. § 112, second paragraph be withdrawn.

**Claims Rejections under 35 U.S.C. § 102**

In the Office Action, the Examiner rejected claims 1, 2, 4, 5, 7, 8-12 and 14-17 under 35 U.S.C. § 102(b) as being anticipated by U.S. Pat. No. 4,483,197 to Kellner (“*Kellner*”). Kellner discloses an apparatus to simulate soil shear stress conditions to protective coating applied to pipes, using gas pressures to exert pressure on the soil reservoir (see abstract). Kellner does not disclose each element of Applicant’s present claim 1 as required for anticipation, including for example, “a load means for applying a vertical pressure to soil in the container via the top opening such that the vertical pressure compresses the soil and resolves to form a horizontal pressure” as recited in Applicant’s claim 1. As such, Applicant respectfully requests that the rejection under Section 102 be withdrawn.

In the Office Action, the Examiner also rejected claims 1, 2, 4 and 6 under 35 U.S.C. § 102(b) as being anticipated by U.S. Pat. No. 4,388,992 to Deconinck (“*Deconinck*”). Deconinck is drawn to a container for holding photographic sheets including springs for biasing the sheet stack away from the bottom wall of the container. Deconinck does not disclose each element of Applicant’s present claim 1 as required for anticipation, including for example, “a load means for applying a vertical pressure to soil in the container via the top opening such that the vertical

pressure compresses the soil and resolves to form a horizontal pressure” as recited in Applicant’s claim 1. As such, Applicant respectfully rejection under Section 102 be withdrawn.

**Claims Rejections under 35 U.S.C. § 103**

In the Office Action, the Examiner rejected claim 13 as being unpatentable over Kellner. Kellner is discussed above with respect to the 102 rejection and is incorporated herein by reference. Kellner is relied on for the disclosure of a “cartridge-type heater” which is inserted within the interior space of the test pipe segment (14) to simulate temperatures of material flowing through the pipe. See Col. 5, lines 46-50. Applicant’s claim 13 recites “cooling means to permit a measure of selective temperature variation in the soil during testing.” Applicant respectfully submits there is no motivation or suggestion to provide cooling means as recited in Applicant’s 13 based on the disclosure of Kellner. As such, Applicant respectfully requests that the Examiner withdraw the rejection under 35 U.S.C. § 103.

**Conclusion**

Applicant has made a diligent effort to advance the prosecution of this application by complying with the requirements of the Office Action. Favorable consideration and an early allowance of the pending claims is respectfully requested. Applicant hereby authorizes the Commissioner to charge any fees, other than the issue fee, that may be required by this paper to Deposit Account 07-0153.

If the Examiner has any questions or comments, or if further clarification is required, it is requested that the Examiner contact the undersigned at the telephone number listed below.

Respectfully submitted,

GARDERE WYNNE SEWELL LLP



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1601 Elm Street, Suite 3000  
Dallas, Texas 75201-4761  
(214) 999-4330 - Telephone  
(214) 999-3623 – Facsimile

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Jason R. Fulmer  
Registration No. 46,715

ATTORNEYS FOR APPLICANT